

AMENDMENTS TO THE CLAIMS

Listing of claims in the case:

The following listing of claims replaces all previous versions of claims in the case.

1. (Currently Amended) A method of testing an electronic device, said method comprising:

a) transferring a test pattern from within said electronic device, said test pattern transferred between a first data controller coupled to a first external data interface of said electronic device and a second data controller coupled to a second external data interface of said electronic device via an element external to said device and coupling said first and second external data interfaces, wherein said first external data interface and said second external data interface are not typically coupled together externally during operation of said electronic device;

b) receiving said test pattern at a node in said electronic device; and

c) examining said test pattern.

2. (Currently Amended) The method of Claim 1, wherein said a) further comprises:

transferring said test pattern between said first data controller and a third data controller coupled to a third external data interface via an element coupled between said first external data interface and said third external data interface, wherein said first external data interface and said third external data interface are not typically coupled together externally during operation of said electronic device.

3. (Currently Amended) The method of Claim 1, wherein said test pattern tests electrical connectivity ~~over~~ between said first data controller and said second data controller.

4. (Previously Presented) The method of Claim 1, wherein said a) comprises transferring said test pattern over external data interfaces having the same form factor.

5. (Previously Presented) The method of Claim 1, wherein said a) comprises transferring said test pattern over external data interfaces having different form factors from one another.

6. (Previously Presented) The method of Claim 5, wherein said a) comprises transferring said test pattern over external data interfaces comprising at least two of: a PCI (Peripheral Component Interconnect) interface, a memory interface, and a disk controller interface.

7. (Original) The method of Claim 1, wherein said first and second data controllers are both tested using a single scan chain.

8. (Original) The method of Claim 1, wherein said a) comprises:
a1) establishing a drive mode for said first data controller; and
a2) establishing a receive mode for said second data controller.

9. (Currently Amended) An apparatus for testing an electronic device, said apparatus comprising:

a first element that is operable to be inserted into a first external data interface coupled to a first data path of the electronic device;

a second element that is operable to be inserted into a second external data interface coupled to a second data path of the electronic device, wherein said first and second external data interfaces are not typically connected together externally during operation of the electronic device; and

a third element coupled between said first element and said second element to allow an electrical coupling of the first external data interface to the second external data interface, wherein said electrical coupling allows the formation of a test data path including the first and second data paths, said test data path capable of carrying a test pattern generated in said electronic device.

10. (Currently Amended) The apparatus of Claim 9, further comprising:

a fourth element that is operable to be inserted into a third external data interface coupled to a third data path of the electronic device; and

wherein said third element is further coupled between said first element and said fourth element to allow an electrical coupling of the first external data interface to the third external data interface, wherein said electrical coupling of the first external data interface to the third external data interface allows the formation of a test data path including the first and third data paths, and wherein said first and third external data interfaces are not typically connected together externally during operation of the electronic device.

11. (Previously Presented) The apparatus of Claim 9, wherein:

said first element and said second element are adapted to be inserted to external data interfaces having the same form factor.

12. (Previously Presented) The apparatus of Claim 9, wherein:

said first element and said second element are adapted to be inserted to external data interfaces having different form factors.

13. (Original) The apparatus of Claim 9, wherein:

said first element comprises a plug-in jumper card adapted to be inserted into a PCI (Peripheral Component Interconnect) card slot.

14. (Original) The apparatus of Claim 13, wherein:

said second element comprises a plug-in jumper card adapted to be inserted into a PCI (Peripheral Component Interconnect) card slot.

15. (Original) The apparatus of Claim 13, wherein:

said second element is adapted to be inserted into a memory slot.

16. (Original) The apparatus of Claim 13, wherein:

said second element is adapted to be inserted into a disk drive slot.

17. (Original) The apparatus of Claim 9, wherein said electrical coupling further allows an electrical connectivity test.

18. (Original) The apparatus of Claim 9, wherein said electrical coupling further allows multiple data controllers to be tested using a single scan chain.

19. (Currently Amended) A computer readable medium having stored therein instructions that when executed on a processor implement a method of testing an electronic device, said method comprising:

issuing a command from within said electronic device to a first data controller to transfer a test pattern generated within said electronic device from said first data controller to a first external data interface coupled thereto; and

issuing a command to a second data controller to receive said test pattern from a second external data interface that is electrically coupled between said first external data interface and said second data controller, wherein said second data controller and said first external data interface are not typically coupled together during operation of said electronic device; and

receiving said test pattern at said second data controller.

20. (Currently Amended) The computer readable medium of Claim 19, wherein said method further comprises:

issuing a command to a third data controller to receive said test pattern from a third external data interface that is electrically coupled between said third data controller and said first external data interface wherein said third data controller and said first external data interface are not typically coupled together during operation of said electronic device.